This listing of claims will replace all prior versions and listings of claims in the application:

1     1.   (Previously   Presented)   A   method   of   time   scale
2  modification of a digital audio signal comprising the steps of:
3     analyzing an input signal in a set of first equally spaced,
4  overlapping time windows having a first overlap amount $S_a$;
5     selecting a base overlap $S_s$ for output synthesis corresponding
6  to a desired time scale modification;
7     calculating a cross-correlation R[k] for index value k between
8  overlapping frames for a range of overlaps between $S_s$ + $k_{min}$ to
9  $S_s$ + $k_{max}$ for only a fixed length overlap region less than an entire
10  overlapping region;
11     selecting a value K yielding the greatest cross-correlation
12  value R[k];
13     synthesizing an output signal in a set of second equally
14  spaced, overlapping time windows having a second overlap amount
15  equal to $S_s$ + K.

1     2.   (Previously   Presented)   A   method   of   time   scale
2  modification of a digital audio signal comprising the steps of:
3     analyzing an input signal in a set of first equally spaced,
4  overlapping time windows having a first overlap amount $S_a$;
5     selecting a base overlap $S_s$ for output synthesis corresponding
6  to a desired time scale modification;
7     calculating the cross-correlation R[k] for index value k
8  between overlapping frames for a range of overlaps between $S_s$ + $k_{min}$
9  to $S_s$ + $k_{max}$ for only a fixed length overlap region less than an
10  entire overlapping region employing the equation

11
$$R[k] = \sum_{i=initial\_x}^{final\_x} sign\{y[mS_s + i + k]\}.sign\{x[mS_a + i]\}$$

12   where: x[i] is the analysis of the input signal for index value i;
13   y[i] is a synthesis signal for the index value i;
14        selecting a value K yielding the greatest cross-correlation
15   value R[k];
16        synthesizing an output signal in a set of second equally
17   spaced, overlapping time windows having a second overlap amount
18   equal to $S_s$ + K.

1        3.   (Original) The method of claim 1, wherein:
2        said step of calculating the cross-correlation R[k] employs
3   only a center half of the overlap region for k = 0.

1        4.   (Previously   Presented)   A   digital   audio   apparatus
2   comprising:
3        a source of a digital audio signal;
4        a digital signal processor connected to said source of a
5   digital audio signal programmed to perform time scale modification
6   on the digital audio signal by
7             analyzing an input signal in a set of first equally
8        spaced, overlapping time windows having a first overlap
9        amount,
10            selecting a base overlap $S_s$ for output synthesis
11       corresponding to a desired time scale modification,
12            calculating a cross-correlation R[k] for index value k
13       between overlapping frames for a range of overlaps between
14       $S_s$ + $k_{min}$ to $S_s$ + $k_{max}$ for only a fixed length overlap region
15       less than an entire overlapping region;
16            selecting   a   value   K   yielding   the   greatest
17       cross-correlation value R[k],

18        synthesizing an output signal in a set of second equally
19    spaced, overlapping time windows having a second overlap
20    amount equal to $S_s$ + K; and
21    an output device connected to the digital signal processor for
22 outputting the time scale modified digital audio signal.


1    5.   (Previously  Presented)  A  digital  audio  apparatus
2 comprising:
3    a source of a digital audio signal;
4    a digital signal processor connected to said source of a
5 digital audio signal programmed to perform time scale modification
6 on the digital audio signal by
7        analyzing an input signal in a set of first equally
8    spaced, overlapping time windows having a first overlap
9    amount,
10        selecting a base overlap $S_s$ for output synthesis
11    corresponding to a desired time scale modification,
12        calculating a cross-correlation R[k] for index value k
13    between overlapping frames for a range of overlaps between
14    $S_s$ + $k_{min}$ to $S_s$ + $k_{max}$ for only a fixed length overlap region
15    less than an entire overlapping region employing the equation

16
$$R[k] = \sum_{i=initial\_x}^{final\_x} sign\{y[mS_s + i + k]\} . sign\{x[mS_a + i]\}$$

17    where: x[i] is the analysis of the input signal for index
18    value i; y[i] is a synthesis signal for the index value i,
19        selecting  a  value  K  yielding  the  greatest
20    cross-correlation value R[k],
21        synthesizing an output signal in a set of second equally
22    spaced, overlapping time windows having a second overlap
23    amount equal to $S_s$ + K; and

24    an output device connected to the digital signal processor for
25 outputting the time scale modified digital audio signal.

1    6.    (Original)  The  digital  audio  apparatus  of  claim  4,
2 wherein:
3    said digital signal processor is programmed to calculate the
4 cross-correlation R[k] employing only a center half of the overlap
5 region for k = 0.